

### **REMARKS**

Reconsideration of all grounds of rejection in the Office Action based upon the following amendments, and allowance of all of the pending claims are respectfully requested in light of the following remarks.

Claims 1-8 are rejected. Claim 1 has been amended. Claim 1 is an independent claim. Claims 1-8 are pending.

The drawings stand objected for failure to indicated that the disclosed drawing is prior art. In response, applicants have provided replacement sheets for FIGs. 1 -3 as suggested by the Examiner.

Claims 1-3, 5-8 stand rejected under 35 USC § 103(a) as being unpatentable over Chang (US 6,804,256) in view of Spinar et al (US 7,006,530). In response, applicants have amended the base claim and provide the following traversal of the obviousness rejection.

Claim 1 as amended, recites a bandwidth allocation method for an optical line termination (OLT) in a Gigabit Ethernet passive optical network (GE-PON) having one OLT and a plurality of optical network units (ONUs) coupled to the OLT, the method comprising the steps of:

a) transmitting a registration request grant message for granting an opportunity for transmitting a registration request signal from the OLT to the ONUs **in a GE-PON band allocation request frame;**

b) determining the number of ONUs that transmitted registration request messages in response to the registration request grant message **in the GE-PON band allocation request frame;** and

c) segmenting a single time slot into a plurality of minislots, segmenting a partial bandwidth of each of the segmented minislots so as to accommodate the ONUs, and allocating the segmented bandwidths to the ONUs that transmitted the registration request messages as voice bands **in the GE-PON band allocation request frame**.

In contrast, the Office Action presents two references which allegedly render the method steps presented in base claim 1 obvious. Spinar which the Office Action postulates as showing steps a and b, relate to frame mapping in Adaptive Time Division Duplexing (ATDD) (see Col. 7, line 53 and Col. 8, line 7). While Chang relates to ATM-PON frames (Col. 4, line 15 – 25). Both Spinar and Chang are examples of the ATM-PON prior art which is fully discussed in the “Background of the Invention” section of the present invention wherein the present invention provides an improvement in newly proposed GE-PON standards (for example see page 7, line 15 -19). As discussed in the specification, the ATM-PON standards are not compatible with GE-PON structure (for example see page 4, line 19-20). Neither Spinar nor Chang suggest or teach the method steps a-c in the base claim related to a **GE-PON band allocation request frame**. Therefore, applicants respectfully request withdrawal of this ground of rejection.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.


For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited reference. A notice of Allowance is respectfully requested.

Should the Examiner deem that there are any issues, which may be best, resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

Respectfully submitted,

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